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COMPOSITIONS FOR FACILITATING SURGICAL PROCEDURES

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Methods are provided for conducting surgical procedures in a patient wherein, during the surgical procedure, autonomous ventricular electrical conductivity and escape beats are reversibly and transiently suppressed to facilitate the surgical procedure. Also provided are compositions which are capable of inducing ventricular asystole in a patient. The compositions may include an AV node blocker. In one embodiment, compositions including an atrioventricular (AV) node blocker and a beta -blocker are provided, wherein the beta -blocker is present in an amount sufficient to substantially reduce the amount of AV node blocker required to induce ventricular asystole in the patient. The compositions and methods may be used for inducing temporary ventricular asystole in a beating heart, and to facilitate the performance of a variety of surgical techniques, including minimally invasive microsurgical techniques. Methods for performing a surgical procedure on a human patient are provided wherein a composition capable of inducing transient reversible ventricular asystole is administered to the heart, for example by intracoronary injection. The heart then is electrically paced using an electrical pacing system, thereby to maintain the patient's blood circulation. The electrical pacing is then selectively intermittently stopped to allow ventricular asystole to occur, and the steps of the surgical or therapeutic procedure, such as suturing, are conducted during the time that the electrical pacing is intermittently stopped. The methods and compositions advantageoulsy may be used in a range of different surgical procedures including cardiac, vascular and neurosurgical procedures.